Book of the month

The Autonomous Patient: Ending Paternalism in Medical Care

Angela Coulter's *The Autonomous Patient*[1] is the sort of lucid, well argued, readable and important book we expect from her. But it is only the first half of what it could be. The work develops her John Fry lecture of 2002, following a pattern remarkably like that established by the late John Fry himself. Both recognize the essential components of rational National Health Service primary care within the dominant assumptions of contemporary society; they isolate the many irrational customs impeding effective work, and then focus on what can most easily be done to clear the decks. They ignore everything outside currently dominant assumptions, confining their work to expelling old irrationalities, without considering possible new ones. The big difference between them is that, whereas it probably never occurred to John Fry that his own common sense might contain some internal contradictions, Angela Coulter seems to have decided to clear out the past without posing choices for the future.

What are these currently dominant assumptions? One of them is that personal medical care follows essentially the same economic pattern as other services—skilled professional providers transferring a service commodity to consumers wanting it. To fit known facts, this first assumption has to be modified in many ways. Angela Coulter discusses these fully and interestingly, but it remains her bedrock assumption. Once made, it leads to a simple and useful historical analysis: in the past, the rights of consumers in this transaction were smothered by the paternal authority of professional providers. If this can be stripped away, consumers become kings and queens in medical care, as everywhere else in the global marketplace. Kings and queens are certainly great consumers, but what do they produce? Is it really asking too much of people to take themselves seriously as citizens, rather than kitsch royalty? Angela drops a nod to the notion of patients as co-producers, but only in the extremely limited sense of consumers acting more intelligently in their own personal interest. Her message is consumerism.

I said her historical analysis was useful. Useful to what? Not to eliminating already vanishing independent professional trade but to accelerating corporate provision of public services as the fastest-growing new field for multinational investment. She quietly accepts that There Is No Alternative. My mind goes back to the early 1990s, when Kenneth Clarke made it clear that the special relationship between top doctors and government was dead; politicians no longer feared doctors. In 1994, to set limits to their loss of authority, courtiers from the BMA and Royal Colleges held a summit meeting on core values in the NHS. Sir Maurice Shock, former Rector of Lincoln College in Oxford, opened the conference. The *BMJ* reported this key passage:

> 'British doctors were unprepared for the Blitzkrieg from the Right which overwhelmed them at the end of the 1980s . . . They seemed to imagine that they were still living in Gladstone's world of minimal government, benign self-regulation, and a self-effacing State . . . . [now] instead of the rights of man we have the rights of the consumer, the social contract has given way to the sales contract, and, above all, the electorate has been fed with political promises . . . about rising standards of living and levels of public service . . . Doctors cannot swim against the tide and must recognise that this is an age of regulated capitalism in which the consumer is courted and protected, encouraged to be autocratic, and persuaded of his or her power . . . Doctors must be willing to get their hands dirty with making decisions on allocation of resources, must speak authoritatively and sensibly to the consumer . . . If [doctors] organised themselves in these ways the government would have to work with doctors, because a Blitzkrieg can conquer, but cannot occupy.'[2]

Sir Maurice's choice of metaphor reveals extraordinary indifference to the lessons of history. Blitzkrieg did indeed conquer, and with active support from the political and corporate establishments it occupied all Europe for four years. The price of their cowardice was the disgrace and exclusion of an entire generation of right-wing politicians and industrialists from direct political dialogue for the next forty years. For the people it meant four years of degradation, and it could have sent the whole world back to mystic barbarism. However, Sir Maurice carried his audience, and their consensual armistice set the context within which we now live and work, and the prevailing assumptions.

Angela Coulter does a good and necessary job of rubbishing paternalism, and introduces many interesting indications of how patients can become more actively engaged in decisions about their care. These references will be useful not just to dig the grave of paternalism, but to start building something new and better. But before burying it, we need to look carefully at what we might lose, if we accept the consumer-driven NHS now on offer from both Alan Milburn, for New Labour, and shadow minister Liam Fox for the Conservatives.

For thirty years I actually practised paternalism. Having no choice but to own what should have been public property, I did what I thought was best for my patients and for our community. It was a despotism in which I tried to be enlightened. I employed about twice the average number of

staff; we held regular whole-team meetings to consider clinical policies; patients had access to their records and listened to referral letters as they were dictated; and we had an elected patients' committee which considered proposals for research and teaching. But all this was conditional on my continued assent. I hired and fired and initiated almost all policies, including these steps toward democratization. A real phoney if ever there was one, but better than running a little business to maximize my own income.

That was the down side. What about positive features? Like other general practitioners before the 1990s, I visited my patients often enough in their homes to be well informed about their lives on their own turf, not mine, I always saw patients on the same day as their initial complaint. I tried as often as possible to visit them when they were in hospital, and to attend their post-mortems (not funerals) when they died. I see no indication that features of this sort are included in the menus now offered to consumers. Our GPs for the most part seem reconciled to the entirely office-based care long familiar in USA.

Medical practice is not at a crossroads. That would be easy; just watch where everyone else goes and follow straight down the middle of the road, turning neither Right nor Left to extremes. No, we have reached a fork in the road. There *is* an alternative, so far without any media-recognized signpost—a rough track, with no free rides, towards an NHS pursuing rational goals set by public health, with patients developing themselves as informed and responsible citizens with our professional assistance. Something along these lines may be beginning to happen in Wales since we had an elected Assembly with independent powers over NHS policy (though not over Treasury policy). Fortunately this has been beneath the notice of London newspapers, so Government remains hardly aware of this danger that a socialized NHS may survive and even grow within the cracks of UK Inc. Given informed leadership, there's plenty of potential support for this in both public and professional opinion; but I really mean public opinion, not the consumer greed and credulity attributed to the public by newspaper editors (tabloid or broadsheet, there's little difference now)—and I really mean professional assistance, a social alliance speaking the European language of solidarity. Or we can carry on down the road to marketed care mapped out by the World Trade Organization General Agreement on Trade in Services, the fantasy land of Alan Milburn where in five years' time every patient will be able to choose their surgeon and the time and place of their operation, inside or outside the NHS (it will make no difference)—despite deficiencies in medical and nursing staff that will take at least a decade to remedy. Market choice depends on superfluous provision. Without an increase in staffing and hospital resources beyond all possibility, this could occur only within a two-tier service, somehow limiting demand from substantial parts of the population. This road leads to unlimited repairs to the body and dopes for the soul, with public health goals wholly replaced by measures of process.

Angela Coulter tells what to get out of, without helping us choose what to get into. The more difficult but necessary second-half has yet to be written, but it's bound to come.

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1 Coulter A. *The Autonomous Patient: Ending Paternalism in Medical Care.* London: Stationery Office (for the Nuffield Trust), 2002 [128 pp; ISBN 0-11-703056-2 (p/b); £13]

2 Smith R. Medicine's core values. *BMJ* 1994;309:1247–8

Ethical Dilemmas in Reproduction

Editors: F Shenfield, C Sureau
114 pp. Price £49.99 ISBN 1-84214-0930 (h/b)
London: Parthenon, 2002

The subject of this collection of papers is not only topical but radical: what at first sight seem to be intricate technical dilemmas in fact go to the root of our perceptions about life, choice and human value. All the contributors deserve praise for venturing into these waters and trying to dredge up some principle, coherent deduction or statement of natural justice—but some drown in the shallows of legalistic argument and special pleading. The best essays are by those who manage to remain aware of just how deep, when it comes to reproduction, the waters of human nature are.

Embryos frozen as future 'insurance' for either the sick or the well, cloning, egg and sperm donation, multiple pregnancies due to assisted reproduction, 'creating a child to save another': the themes are a rollcall of the issues that have surfaced in recent years, with greater or less accuracy, into general press coverage. To a man and woman the contributors' hearts seem to me in the right place; for instance W J Dondorp concludes, with careful argument, that the benefits of freezing the ovarian tissue of healthy women for later use are rather low as yet and the risk of shortening fertility thereby is real. But an over-cautious

fairness leads this author, and one or two others, to wander down such philosophical dead-ends as the possible use of frozen tissue by trans-sexuals, or the moral least-worst decisions involved in giving fertility treatment to the HIV-positive.

Typical is the contribution of J Tizzard, 'Gamete donation: secrets and anonymity'. She reviews the shift of opinion and practice over the years from anonymity towards controlled disclosure (thought to be a Good Thing) but fails to address the evasion of truth at the heart of this whole topic—namely, that both sperm and egg donation have in the past been encouraged as if they were simply generous acts, and the momentous implications of abandoning one's own genetic material in this way have been obfuscated. The essay contains no comment on the coerciveness of those current assisted reproduction programmes in which treatment is bargained in return for spare eggs: the fact that egg-donation itself is illegal in some highly developed countries does not apparently sound any warning note.

Nor does it seem to occur to Tizzard that many men who have donated sperm readily in the past have only done so *because* they are young and heedless, and that any suggestion that their contribution might come under scrutiny many years later would cause the supply, so to speak, to dry up. Contrary to a widely held belief, mature and careful reflection is not helpful in every circumstance. It comes as some relief to be told that many parents 'seem not to heed' supposedly mature and careful advice to tell their children about their irregular conception. I suspect that these parents have understood viscerally something about the private spaces in the human psyche which are inaccessible to current correct thinking.

The only paper that shows a full awareness of these private spaces is the one on the rights and wrongs of preimplantation genetic diagnoses (familiar to a lay public as the ongoing fuss about 'designer babies'). Paradoxically, the authors, Drs Pennings and Liebers, both of Belgium, are rather less judiciously even-handed than the other contributors and do not hesitate to show what they actually think—which is that 'conceiving a child to save another is a morally defensible decision . . . The use or instrumentalization of that child does not demonstrate disrespect for his or her autonomy and intrinsic value'. So much for the recent rejection of such a case in Britain by the Human Fertilisation and Embryology Authority (who, by the way, do not appear to be consistent in their views, since an identical case a few months earlier produced a different ruling).

What some of the overwrought public comment on the Whitaker case did not take into account, which this paper does, is that ever since bone-marrow transplants first became feasible parents have been having additional children in the hope of thus saving an existing one. Also, in a much broader sense, having another child to benefit an existing one or to replace a dead one or to fulfil any one of a whole range of parental needs is as old as humanity. It does not mean the new child is not loved for himself or herself. You cannot, as the authors say, codify decisions to procreate—indeed, 'the whole idea of wanting to morally evaluate the parents' motives is questionable and almost doomed to fail'. For such fundamental insights I recommend this book wholeheartedly.

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Risk Management and Litigation in Obstetrics and Gynaecology

Editor: Roger V Clements
406 pp. Price £31.95 ISBN 0-85315-480-6 (p/b)
London: RSM Press

Money paid out for clinical negligence now accounts for a sizeable part of National Health Service spending. The trend to litigation is increasing and the specialty of obstetrics and gynaecology suffers particularly because of high awards for brain damage in babies. Numerous books and courses offer advice on how to avoid such litigation, under the titles risk management and clinical governance. However, some clinicians feel that risk management is a drain on time and resources, without much benefit to the patient. This view, I believe, is partly due to a mistaken idea that risk management is synonymous with defensive medicine. Defensive medicine is a sloppy mode of practice whereby patients are overinvestigated so that the clinician escapes criticism if the outcome is unsatisfactory. (Most investigations yield some false-positives which then lead to further tests, which may be hazardous to the patient.) Risk management, by contrast, is about identifying the risks, deciding on practical strategies to minimize them and also deciding whether they are worth taking. Individuals and departments reach differing conclusions, hence the variations in management policies nationwide.

Risk Management and Litigation in Obstetrics and Gynaecology is very clear about this distinction. It is ambitious in dealing not only with risk assessment but also with practical procedures such as operative gynaecological techniques and instrumental vaginal delivery. The section on prediction and management of shoulder dystocia is clear and concise and outlines the labour-ward management of this serious obstetric emergency in a way that will greatly help obstetric practitioners. I was less impressed by some other recommendations; for instance, to perform an instrumental vaginal delivery with any part of the head

palpable abdominally is contrary to the guidelines of the Royal College of Obstetricians and Gynaecologists. The reason for this discrepancy, doubtless, is the rapid change in clinical practice, but it does illustrate why a clinician must keep up to date. The book is amply referenced and there are numerous tables and illustrations. The chapters are of a length that can be read at a single sitting. Some will be of most interest to clinicians in a subspecialty such as urogynaecology. I suggest that the next edition should include a chapter on postnatal care, a common source of complaints poorly covered in most texts.

This book will be of interest to obstetricians and gynaecologists at all levels, as well as to those senior consultants responsible for risk management.

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An Ear to the Chest: an Illustrated History of the Evolution of the Stethoscope

M Donald Blaufox
149 pp+ix Price £52.99; $74.95 ISBN 1-85070-278-0 (h/b)
London: Parthenon, 2002

It was Dr Blaufox's interest in the history of measurement of blood pressure that led him to acquire an important collection of stethoscopes and stimulated him to write about their evolution. As the title indicates his book is very well illustrated, with 28 figures in the text and good photographs of 88 stethoscopes from the author's collection. The numerous illustrations make it a very useful addition to the published work, though the price is surprisingly high. Ten chapters describe the various stages of evolution of the stethoscope and offer a comprehensive collection of references.

Some historians decry the seminal role of the individual in making important discoveries, maintaining that it is the overall situation at the time which is the determining factor for progress in science and medicine. They choose to ignore that innovative men and women have personally initiated great advances. Such an advance was made by Théophile René Hyacynthe Laennec on 13 September 1816 with his invention of the stethoscope which almost overnight transformed the desultory application of an ear to the chest (immediate auscultation) into the widely used discipline of mediate auscultation. The famous occasion when he rolled up a quire of paper and listened to the chest through it was luckily witnessed and recorded by a British doctor, Augustus Granville. The roll of paper was soon replaced by a wooden cylinder and this new instrument was quickly adopted in Europe, Britain and America, with the backing of good studies relating the sounds heard in the chest and the heart to the pathology as found post mortem. It may seem surprising that auscultation had not been used widely beforehand, because Hippocrates had mentioned the succussion splash in the chest and William Harvey in 1628 noted that 'there is a beating which is heard within the breast'. Clearly an instrument was needed to catalyse the development of auscultation and it was not long before modifications of the Laennec model and completely new types of stethoscope were produced.

The monaural model of Laennec was not ideal, and indeed was described by an American doctor as 'the objectionable European instrument', but remarkably its many modifications persisted for nearly 100 years and as late as 1912 an instrument catalogue showed 78 monaural types as opposed to 53 binaural. However, there was an early urge to produce a binaural instrument and CJB Williams of London made one in 1829 using two bent lead pipes. Progress depended on getting a flexible material for the tubing; although vulcanization of rubber was achieved in 1839 it was not until 1888 that Dunlop produced the pneumatic tyre. Nevertheless, eager inventors were at work. CW Pennock of the USA made one of flexible brass tubing in 1844, others used woven silk impregnated with unrefined rubber (caoutchouc), and A Leared produced one of gutta percha for the 1851 Great Exhibition. But Dr Blaufox is clearly correct when he maintains that the first truly practical binaural device, one which looks like 20th century models, was that of George Cammann of New York, in 1856. It was naturally desirable to convey the sounds directly into the ear and he used ivory knobs. The ingenuity displayed in new designs is well seen in this book, when one looks at for example Alison's differential stethoscope which had two chest pieces allowing sound from two different areas of the chest to be heard at the same time.

But the most original and thoughtful change in design was the invention of the diaphragm type of chest piece in 1894 by Robert Bowles of Massachusetts. The flat surface gave good contact with the chest and was easily applied to the elbow for measurement of the blood pressure. Its superiority to the bell for high-pitched noises was only later recognized. It was left to Howard Sprague of Boston to introduce the final important modification by combining a diaphragm and bell in one chest piece in 1926. The Sprague–Bowles stethoscope became the preferred instrument, though many doctors continued to use a bell only, or sometimes a diaphragm, well into the 1950s.

As Dr Blaufox points out there have been numerous modifications over the years and he has done a good job in summarizing a complex matter. Without being parochial I suggest that he could have included the design made by Aubrey Leatham at St George's Hospital, London, in 1955 which uniquely had a bell with two components, large and small. The Littmann stethoscope of 1961 was essentially a

redesign of the Sprague–Bowles, but its lightness and ease of use has made it the standard model in current use. Dr Blaufox ends his book with a note of deep regret that the emergence of modern imaging techniques has led to a neglect of clinical examination. The stethoscope is being put aside by devices which obviate the basic skills of history taking, observation and examination.

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Elderly Medicine: A Training Guide

Editors: G S Rai, G P Mulley
430 pp Price £45 ISBN 9-05823-234-4 (h/b)
London: Martin Dunitz, 2002

With its population getting older, the UK is increasingly in need of well-trained and enthusiastic elderly-care physicians. Fifty years ago geriatrics dealt mainly with continuing care and rehabilitation but it has evolved into a specialty encompassing acute general medicine with a holistic multidisciplinary approach. In future years the national service framework for older people may well generate opportunities for subspecialty work in areas such as stroke, falls and intermediate care.

Rai and Mulley's *Guide* does not set out to be exhaustive. It offers practical advice on common problems, incorporating clinical trial evidence where possible and common sense where not. The text is easy to read and the layout allows one to skip between chapters and diagnoses with ease. Some sections deal with frequent dilemmas in the elderly such as falls and instability, pressure care and practical management of stroke. Others address diseases that affect all age groups, such as cancer and respiratory disease, but with a bias towards management and diagnosis in the elderly. On certain matters, such as Parkinson's disease, the detail struck me as insufficient; and coronary heart disease is not covered at all. But these can be pursued elsewhere. Clinical issues apart, aspiring consultants in old age medicine will appreciate the guide's helpful words on negotiating with managers, service development and interview practice.

Overall I was very impressed by the book, which draws on the experience of a wide range of individuals. I recommend it to trainees in geriatric medicine, and it will be useful to other doctors in training whose day-to-day practice includes older people.

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Communicating Without Speech: Practical Augmentative and Alternative Communication

Editors: Helen Cockerill, Lesley Carroll-Few
pp 185 Price £45 ISBN 1-898-68325-5 (h/b)
London: Mac Keith Press

Many of the troubles that we associate with the 'terrible twos' probably arise from the limited ability of toddlers to make themselves understood. This frustration will persist and become magnified in children whose speech fails to develop. What can be done to help? Acquisition of conventional language and production of intelligible speech are hugely complex tasks that are unattainable for certain children. In some (such as those with athetoid cerebral palsy, articulatory dyspraxia, or inadequate respiratory reserve) there is difficulty with voice production. In others (including those with specific language disorders, or severe global developmental delay) the problem involves inner language too. Parents often find it difficult to accept that their child will never speak effectively, so spend their energies on encouraging ordinary speech rather than teaching alternative methods of communication that are likely to be much more accessible for their child.

Anywhere in the world we could make the gesture of bringing an invisible cup to our lips with a reasonable hope that we would be understood. Simple gestures such as this are much more readily and universally understood than our 'native' tongue. Gestures can be understood—and copied—by even very young children, and those with poor fine-motor control. Augmentative and alternative communication (AAC) includes gesture and signing, and the use of pictures and symbol charts. Electronic voice synthesizers are also forms of AAC, but ordinary writing and typing are not.

The first two chapters of *Communicating without Speech* deal with the neurology of speech and language disorders. There are several photographs and diagrams of the brain, mostly borrowed from old anatomy textbooks (and many not actually demonstrating what the new captions suggest). There are some new pictures; one of these added to my confusion by labelling Broca's area as Wernicke's area and *vice versa*. Though the pictures are poor—disappointing in a book about alternatives to the spoken and written word—the text is clear and encourages precision in diagnosis. The authors state that there has been a recent tendency to include children with a variety of different language impairments under the umbrella of 'autistic spectrum disorders'. They suggest that the much-publicized increase in the diagnosis of autism is the result of such lumping.

The book moves on to discuss the practicalities of introducing AAC, and tailoring the method to patient, family and school. The many barriers to its acceptance and practice are described. Parents may say 'we already

understand each other perfectly well', or fear that AAC might inhibit normal speech development (in studies that have shown a difference, the opposite is true). The AAC methods should be introduced as early as possible; speech disorders are so common in certain chromosomal and dysmorphic syndromes that the methods can even be started before the problems become apparent. Sad to say, in many cases there is insufficient funding for the ideal of an expert multidisciplinary assessment (by a specialized speech therapist, a physiotherapist, an occupational therapist, a psychologist and a teacher).

If the low-tech AAC devices do not help, the high-tech ones will not either. Parents often have great hopes for the various types of voice synthesizer, but these tend to be useful only for individuals with normal language comprehension and impaired voice production. Assessment of comprehension and intelligence in multiply handicapped children is extremely difficult; in the future, functional MRI or positron emission tomography may reduce much fruitless trial and error.

One of the chapters consists of a series of personal accounts about AAC aids written by children, their parents and their therapists. David, a child with cerebral palsy who has a Cameleon voice synthesizing computer attached to his electric wheelchair, writes:

> 'The only slight problem is that it takes eight seconds to get into speech mode from driving. So, when I drive up to people they must give me time to get into speech mode . . . switches are another problem . . . I've tried accessing them with my hands, head, or anything else . . . if I can't apply enough pressure or if they can't be sited in the right place for me to access, they have to go . . . the best switches are no good without the right computer, and that's no good without the right software, and none of it is any good without the right teacher . . . I've got about eighty-eight pages on my Cameleon at present. A lot of them are useful and have pre-programmed sentences—the sort of things I use a lot—about food, things I want to do, places I need to go . . . I've got a social page that's useful when I meet new people . . . it's much easier to have a whole page for some topics . . . if I were to build the sentence ''can we go to town this Saturday'' it would mean using my head switch sixty-two times . . . that's hard work and takes a long time . . . if I say ''town Saturday'' it is much quicker and only takes nineteen switch movements . . . I do get mad when people don't give me time, and when they think they know what I was going to say. How can they? . . . Lastly, please don't ''talk down'' to us. We are not simple . . . and physically don't talk down to us either. You all talk face to face, with eye contact and facial expression . . . if we're in a wheelchair sit down, or at least come to our level'.

The public's knowledge of the Cambridge astrophysicist Stephen Hawking should have dispelled the belief that users of voice synthesizers are simple, but most people don't realize that Hawking's apparently spontaneous and fluent speeches have taken several days of computer preprogramming, and that the television companies edit out the long silences before he answers audience questions.

The final chapter describes the various AAC resources available, including sign languages, sign systems, graphic symbol systems and sets, and the electronic voice-output devices. Readers who are unfamiliar with all these should probably read this chapter first.

I liked the book. On the ward this week, we have a boy with quadriplegic cerebral palsy, learning difficulties and epilepsy. He can't speak; his only means of expression is crying, which he did for eight hours yesterday. The nurses thought he was in pain and were keen for the doctors to prescribe something—perhaps a laxative, an antacid or a muscle relaxant. His mother said that he simply doesn't like hospitals. If only he could tell us what is bothering him so much. With the right help, perhaps he eventually will be able to.

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The Origin of Species Revisited: a Victorian who Anticipated Modern Developments in Darwin's Theory

Donald R Forsdyke
275 pp. Price $50 Can (hb) ISBN 0-7735-2259-X.
Montreal: McGill-Queen's University Press, 2001

In 1858 papers were presented on evolution at the Linnean Society in London by Charles Darwin and Alfred Russel Wallace. The following year Darwin's *magnum opus* was published—*On the Origin of Species by Means of Natural Selection, or The Preservation of Favoured Races in the Struggle for Life*. With the plethora of publications in recent years on molecular genetics and related matters it is sometimes difficult to appreciate the enormous impact Darwin's work had at the time. Of course, writers on the subject have given much attention to the British Association for Advancement of Science meeting in Oxford the following year with the notorious clash between Huxley and Bishop Wilberforce. But the arguments were rehearsed in different guises over many of the following years. Even today commentaries on the subject by Richard Dawkins and Steve Jones in this country and Steven J Gould in the United States still attract a great deal of understandable attention from both scientists and non-scientists. But perhaps it is not always fully realized and appreciated that at the time nothing was known of the

genetic mechanisms by which species could evolve. Though Gregor Mendel's seminal papers on inheritance and the segregation of hereditary factors were presented in 1865 and published the following year his ideas, essential to any in-depth understanding of the origin of species and evolution, remained virtually unknown until 1900. Even then, those who realized their importance in the scheme of things, such as William Bateson, were sometimes misunderstood or disregarded.

In his scholarly study, Forsdyke details the thinking among philosophers and scientists around the time of Darwin's publication who attempted to explain the most serious difficulties with Darwin's theory—namely, how could small initial variations lacking any apparent value to the individual (so-called 'non-adaptive') lead to the establishment of a new species without being swamped by intercrossing with its neighbours? Having outlined this and related problems, the author singles out for special mention George Romanes (1848–1894). Born in Kingston, Canada (where Forsdyke now lives), in early childhood Romanes accompanied his parents to England and later studied physiology at Cambridge and University College, London. He engaged in research on echinoderms and medusae, for example, and became a close friend of Darwin. Forsdyke here concentrates his attention on Romanes' theory of 'physiological selection' which he expounded in 1886, also at the Linnean Society. He proposed that physiological selection, by preventing intercrossing, enables natural selection to promote diversity and thereby evolution, and that sterility of the offspring of crosses between species (such as occurs in the mule, resulting from crossing a horse and donkey) was the natural result of 'some physiological change having exclusive, reference to the sexual system . . .' a concept which in Forsdyke's view anticipated modern developments in genetics.

Incidentally the portraits of all three of the main characters in this story (Darwin, Huxley and Romanes) were painted by the Victorian artist John Collier (1850–1934) who married Huxley's two daughters in succession after the first had died. The portraits are reproduced here but not in colour unfortunately.

This is a scholarly and very well referenced work. It will certainly appeal to all those with an interest in the thinking of Victorian philosophers and scientists as they struggled to understand how new species could arise and evolve.

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Queen Adelaide's Dispensary: A charitable response to cholera

Queen Adelaide's Dispensary was founded in Warner Place, Bethnal Green, after a severe outbreak of cholera in the East End. With the death of King William IV in 1837, for the next twelve years Queen Adelaide was Queen Dowager, until her death in 1849. During these years she was esteemed for her blameless life and royal munificence. Some fifteen years after the foundation of the dispensary which was named after her, a new site was acquired in nearby Pollard Row, where a fine building in lavish Renaissance style was constructed, with ornaments of fruit and flowers and an elaborate tower and cupola. The bust of Queen Adelaide forms the centre-piece of the broken pediment above the central window on the first floor. The building no longer serves a medical function.

Denis Gibbs